

THE ANNALS
AND
MAGAZINE OF NATURAL HISTORY.

I.—*On early Contributions to the Flora of Ireland; with Remarks on Mr. Mackay's Flora Hibernica.* By the Rev. T. D. HINCKS, LL.D., M.R.I.A.

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,

HAVING met with various remarks which seem to imply a peculiar negligence on the part of the Irish in respect of the Natural History of their country, and these remarks having been repeated without any effort to correct them, may I beg permission through your valuable work to make some statements on the subject? As I have for nearly fifty years taken an interest in the botany of Ireland, and as I have had opportunities of knowing ~~many~~ persons who interested themselves about it, I hope I may not be deemed unreasonable, especially as I have no claim of my own to bring forward or any wish to speak lightly of the exertions of late botanists, who I believe would not knowingly claim more than they are fairly entitled to. As these remarks were chiefly suggested by Mr. Mackay's *Flora Hibernica*, or the reviews of it, I beg to acknowledge my own obligation to him for that work, and to express the esteem and regard I have felt for him for more than thirty years that I have had the pleasure of being acquainted with him.

Different opinions are entertained by botanists as to what a local Flora should be. Remarks on the subject have been made by Prof. Henslow*, attention to which might be of much use; but I cannot blame Mr. Mackay, in the *Flora* of such an extensive district as Ireland, for having inserted the generic and specific characters, even though he may not have added to those of Sirs J. E. Smith and W. J. Hooker.

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I conceive, as far as possible, discriminate between those plants which are really indigenous, and those which appear to have been introduced, whether at an early or a later period; it should mark the situation in which the plant is found and the different parts of the country; whether abundant or scarce; and on what kind of ground, as limestone, basalt, &c. It should be an object to record the *earliest* notice of each plant, and the name of the discoverer, if it can be ascertained, to which may be added remarks on its nature and uses. And in the case of a country like Ireland, which has its own peculiar language still used in many parts of it, the name given to the plant in that language should be recorded, when known, as well as the common names in English. The author of a local Flora should be a man well acquainted with the past as well as present state of the district, and should be able to make various branches of science contribute to the usefulness of his work. Finally, if like Dr. Johnston, in his Flora of Berwick-on-Tweed, he can render his work entertaining as well as instructive, he will have a stronger claim on the gratitude of those for whom he has been labouring. That my friend Mr. Mackay's work does not meet all these objects is no reason for censuring him, and with respect to the Irish names, unless he had it in his power to give *real* ones, it was much better to omit them altogether, than to do, what was done in another case, manufacture names for the occasion, which a native could hardly recognise.

Mr. Mackay's introduction begins with the remark, "It has been matter of complaint that the history of the natural productions of Ireland has hitherto been neglected," but he considers the censure as one of too great severity. The authoress of an "Irish Flora," published about three years before Mr. Mackay's, viz. in 1833, says, "it has been remarked, that when England and France had their provincial Floras, the botany of this island was as much unknown as that of an island in the Pacific; although its peasantry possessed a very considerable knowledge of plants, which is, &c.—but among its enlightened inhabitants it has remained almost a sealed book, while men of science have been occupied investigating other countries not possessing half its richness in vegetable productions." As a proof, the extraordinary deficiency of information in this science, to be met with in the surveys of counties in Ireland, is brought forward, with some exceptions; and be it remarked, that the works excepted were *published*, or at least some of them, before 1750; i. e. eighty years before the time of making the remark. A reviewer of Mr. Mackay's work in the Dublin University Magazine, in a very

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interesting article, which proves the information and ability of the writer, except that he knew little of the past state of Ireland, renews the complaint of the *neglect* of the natural history of Ireland, speaks of everything relating to it as only just *beginning*, and compares this with the state of things in Bavaria and Sweden, and then with America. He speaks of the demand for general treatises and the publication of local Floras in England; adding, that "no local Flora has ever been *attempted* in Ireland." Speaking of the progress of the science, he adds, "the valuable result of all is had in England; and among the Scotch almost every town of any magnitude has its museum or botanic garden, or both, and it is but a few years since the only similar establishments in Ireland were those of Dublin—recently the spirited people of Belfast has established both a museum and botanic garden. When Cork or Limerick will choose to follow, where they did not know how to take the lead, we know not." There are not many who are able to detect the errors here fallen into, and which have been of late often repeated, because the greater part of the readers are, like the writer, ignorant of the past; and of what great consequence is it, some may think, if the efforts of earlier times be forgotten? Now as science is progressive, every succeeding period derives advantage from that going before. "No effort is lost," and it becomes those who are now making rapid advances, to acknowledge the advantages they derive from what their predecessors have done; and such is the *general* feeling, though we occasionally meet with departures from it, arising perhaps more from the ignorance of the writer than from any desire to deprive the dead of any credit to which they were entitled. According to the reviewer no previous publication existed from which Mr. Mackay could obtain any great amount of information respecting our indigenous plants. "The only original work to which he could refer was that of Threlkeld, published more than a century ago, and which is unfortunately merely a catalogue of the more common plants alphabetically arranged, with brief indication of their real or supposed medical virtues. The work of K'Eogh is scarcely deserving of notice, and with one or two exceptions no botanical information was to be obtained from the statistical surveys of the different counties. The task of ascertaining the habitats of rare plants and of discovering new ones, rested almost entirely with the author and his contemporaries." Now somewhat depends on the meaning annexed to contemporaries; and if it includes all who were living at the same time, even those who were going off the stage when Mr. M. came on it, it would include a great many whose principal services to bo-

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Having thus stated the charge brought, that the literary men of Ireland had been peculiarly negligent of her botanical treasures, I shall endeavour to show that it is in great measure not well-founded. It proceeds on the supposition that because a local Flora had not been published, therefore "the botany of Ireland was as much unknown as that of an island in the Pacific." Now we have seen that works were published early in the 18th century, and that references are made to botanists in the 17th century: may we not then look to the comparative state of botany elsewhere? It is well known that for a long period this science was cultivated merely as "the humble but engaging handmaid of surgery and medicine." All the catalogues had a reference to this, except those of timber trees and articles of food. It was not till the latter end of the 17th century, that botany began to make progress as a science, and notwithstanding the valuable labours of Ray and Tournefort, it was not till the establishment of the Linnæan System, about the middle of the 18th century, that there was any work "to enable a botanist by short determinate characters to discover the name of an unknown plant." It is useless then to lament that there was no *Irish* work of this kind, when none existed anywhere. Without urging our ignorance of what may be concealed in Irish MSS; without alleging the change that had so recently taken place in Ireland by the cutting down of woods and the formation of bogs; without dwelling on its wretched internal state, so adverse to all scientific inquiries; it is enough to state that there was a like ignorance of plants in other countries, and that the idea of distinct Floras as guides to students had not been conceived. The earliest works in Ireland, as in England, were chiefly intended to guide the medical practitioner, "the culler of simples," where to find what he wanted. It was not till 1762, when

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We have no records of the first discoverers, but we know that a Rev. Mr. Heaton communicated the names of plants he had found to How and Merret, and that, probably through him, those plants which at present constitute the most remarkable difference of the *Flora of this island* from that of Great Britain, were known and recorded long before the time of Threlkeld. In 1727 appeared the first list of Irish plants, except what may possibly exist in the Irish language. I will not repeat the slighting terms in which this work is spoken of, but by giving a fuller account of his work, show that the distinguished Robert Brown did not estimate the author of it too highly when he thought him deserving of a place amongst the promoters of botanical knowledge. I allude to the circumstance of his having called a genus of plants by his name, which he would hardly have done if he considered his work so useless as some regard it. The title was "*Synopsis Stirpium Hibernicarum, &c. &c.*", being a short treatise of native plants, especially such as grow spontaneously in the vicinity of Dublin, with their Latin, English, and Irish names, and an abridgement of their virtues, with several new discoveries; with an appendix of observations made upon plants by Dr. Molyneux, Physician to the State in Ireland." The modest motto prefixed is, "*Est quiddam prodire tenus si non detur*

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[To be continued.]

II.—On Sphæronites and some other genera from which *Crinoidea* originate. By L. VON BUCH*.

PERHAPS there are few schemes of general structure sketched by Nature within whose circle so many and so variously modified forms have been unfolded as the beautiful Lilies of the Ocean, the *Encrinites* or *Crinoidea*. From their simple origin they diffuse themselves in every direction to the most wonderfully complex and numerous forms, and then suddenly return in the progress of creation to a proportionately small number; so much so, that of the numerous genera and species of the primitive age, only the solitary *Pentacrinus* has come down to our present period. But other forms have unfolded and diffused themselves in all oceans. The corolla of the lily has again closed, and perfectly enveloped *Asteriæ* and *Echini*, capable of greater movement and development, have taken the place of the *Crinoidea*.

No formation can produce a greater number of the most varied forms of these creatures of the primitive age, than the transition formation from the oldest strata to the carbonaceous series. Their chief character in this period is, that the parts which envelope the body have still greatly the superiority over the auxiliary members which are to convey the nutriment, the far-spread many-fingered arms. This body becomes smaller and smaller, and consists of fewer pieces in the Jura formation; the arms and fingers are on the contrary longer, more compound, and in greater number. With *Comatula* or the *Euryalæ*, the body separates entirely

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